

In re Application of:  
Worley et al.  
Application No.: 09/245,277  
Filed: February 5, 1999  
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PATENT  
Attorney Docket No.: JHU1530-3

### REMARKS

Claims 1 to 7 have been amended as set forth in the attached "Version With Markings To Show Changes Made." As amended, the claims are supported by the specification and the original claims. In particular, support for the moderately stringent hybridization conditions in the claims may be found in the specification at, for example, page 13, lines 1 to 5. Similarly, support for the highly stringent hybridization conditions in the claims may be found in the specification at, for example, page 13, lines 6 to 10. Support for the addition of the characteristic "expressed in response to seizure or ischemia" with regard to the IEGs of the invention may be found in the specification at, for example, page 8, lines 4-7 or Example 5.

Additionally, new claims 44-47 have been added to the application. As submitted, the claims are fully supported by the specification as originally filed in the present application and do not add any new matter. Thus, upon entry of the amendments, claims 1-7, 12, 13 and 44-47 will be pending.

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For the reasons set forth herein, Applicants maintain that claims 1-7, 12, 13 and 44-47 clearly and patentably define the invention and respectfully request the allowance of the claims which are now pending. If the Examiner would like to discuss any of the issues raised in the Office Action, Applicant's representative can be reached at (858) 677-1456. Please charge any additional fees, or make any credits, to Deposit Account No. 50-1355.

Respectfully submitted,

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Core Application of:  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

1. (Amended) An isolated nucleic acid comprising at least one adenine base, at least one guanine base, at least one cytosine base, and at least one thymine or uracil base, wherein said isolated nucleic acid is at least 12 bases in length, and hybridizes to the sense or antisense strand of a second nucleic acid under moderately stringent or highly stringent hybridization conditions, said second nucleic acid having a sequence as set forth in SEQ ID NO: [1, 2, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 20, 22, 23, 24, 25, 28, 29, 33, 34, 35, 37, 39, 40, 41, 42, 43, 44, 47, 49, 50, 51, 52, 53, 54, 55, 56, or 57] 26.
2. (Amended) The isolated nucleic acid of claim 1, wherein said hybridization conditions are moderately stringent hybridization conditions, wherein said hybridization conditions include 1-15 ng/mL of isolated nucleic acid probe hybridizing to said second nucleic acid bound to a nitrocellulose filter, hybridization in 25 mM KPO<sub>4</sub> (pH 7.4), 5X SSC, 5X Denhart's solution, 50 µg/mL denatured sonicated salmon sperm DNA, 50% formamide, 10% Dextran sulfate at 42°C, with washes at 50°C in 2X SSC and 0.1% SDS.
3. (Amended) The isolated nucleic acid of claim 1, wherein said hybridization conditions are highly stringent hybridization conditions, wherein said hybridization conditions include 1-15 ng/mL of isolated nucleic acid probe hybridizing to said second nucleic acid bound to a nitrocellulose filter, hybridization in 25 mM KPO<sub>4</sub> (pH 7.4), 5X SSC, 5X Denhart's solution, 50 µg/mL denatured sonicated salmon sperm DNA, 50% formamide, 10% Dextran sulfate at 42°C, with washes at 50°C in 2X SSC and 0.1% SDS.
4. (Amended) An isolated nucleic acid, [wherein said isolated nucleic acid comprises] comprising a [nucleic acid] nucleotide sequence that encodes an amino acid sequence at least five amino acids in length, said amino acid sequence comprising at least three different amino

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acid residues, and being identical to a contiguous portion of sequence set forth in SEQ ID NO:  
[11, 21, 30, 36, 38, or 48] 27.

5. (Amended) An isolated nucleic acid comprising a nucleic acid sequence at least 60 percent identical to the sequence set forth in SEQ ID NO: [1, 2, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 20, 22, 23, 24, 25, 28, 29, 33, 34, 35, 37, 39, 40, 41, 42, 43, 44, 47, 49, 50, 51, 52, 53, 54, 55, 56, or 57] 26 and that is expressed in response to seizure or ischemia.

6. (Amended) An isolated nucleic acid, [wherein said isolated nucleic acid comprises] comprising a nucleic acid sequence that encodes an amino acid sequence at least 60 percent identical to the sequence set forth in SEQ ID NO:[11, 21, 30, 36, 38, or 48] 27.

7. (Amended) An isolated nucleic acid comprising a nucleic acid sequence as set forth in SEQ ID NO: [1, 2, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 17, 20, 22, 23, 24, 25, 28, 29, 33, 34, 35, 37, 39, 40, 41, 42, 43, 44, 47, 49, 50, 51, 52, 53, 54, 55, 56, or 57] 26.